

Quality Management in Curriculum Development and Delivery in African Universities: A Case Study of Moi University, Kenya

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Abstract

Institutions of higher learning have been faced with many challenges arising from increased student enrolment, liberalization of education system and globalization of education in general. As a result of these pressures, universities have been challenged to maintain quality in curriculum development and delivery. This paper discusses how Moi University has risen above these challenges to maintain quality in curriculum development and delivery, in which areas Moi University has developed quality assurance principles. The institution is among top universities in Kenya offering quality teaching, research and community outreach.

Key words: Quality teaching, course evaluation, higher education institution.

Introduction

Quality means different things to different people and is relative to processes or outcomes. Quality is a complex concept, and quality in higher education is especially ambiguous and sometimes even confusing. However, it is generally accepted that quality in higher education is perceived as consisting of a synthesis of conformity, adaptability and continuous improvement. Quality is a synthesis of a range of expectations for many stakeholders. Students may focus on facilities provided and perceived usefulness of their education for future employment. Academic staff may pay attention to the teaching-learning process. Management may give importance to achieving an institution's goals and objectives, whereas parents may consider the education achievement of their children. Employers may consider the competence

of the graduates, and government may be interested in achieving education goals for its youth (Commission for Higher Education, 2008).

Quality is seen as adding value. This concept focuses on the students and value added to them during education and training (*ibid.*). The process begins with formulating learning outcomes and ends with realizing the outcomes of graduates. The basic question is ‘what has the student learned?’ An institution that enables a student to enhance his/her knowledge, competence and employability is seen as successful in its efforts and therefore in generating quality education and training.

Quality is also seen as value for money. This concept focuses on efficiency and effectiveness of a program by measuring outputs against inputs. Something is considered to have quality when it meets the expectations of the consumers in relation to the amount they pay for it. Quality therefore corresponds to the satisfaction of the customers.

Curriculum is an organized program of study for a given degree, diploma or certificate award, incorporating all matters such as academic staff requirements, duration of academic program, admission requirements, content requirements and assessment process requirements. In this paper we discuss programs of study leading to an award of university degree. We will specifically discuss curriculum development, review and delivery at Moi University.

In Kenya, the process of quality assurance in curriculum development involves evaluation of an academic program to ensure it meets standards set by CHE. To achieve quality in curriculum, it is important to assess supporting academic resources (physical, academic, equipment, learning materials, texts and journals). The accreditation of university curricula is done by CHE for private universities, whereas chartered public universities develop and approve their curricula through established systems.

The mandate for quality assurance in higher education programs lies with Kenya’s Commission of Higher Education. This Commission undertakes the role of external quality evaluation, which includes reviewing, measuring and judging the institution. The commission evaluates the institutions’ education processes, practices, programs and services. A university will conduct internal quality assessment and can invite peers to assess its processes, practices, programs and services. This paper is concerned with curriculum development and delivery and will thus focus only on programs and services.

Establishment of Moi University

Moi University (MU) is the second oldest university in Kenya, established in 1984 through an Act of Parliament that recommended its establishment in a rural setup. The University is located thirty-five kilometers southeast of the town of Eldoret and 300 kilometers northwest of Nairobi. Eldoret is the fifth-largest town in Kenya with an estimated population of 800,000 people (Central Bureau of Statistics 1999). The student enrolment at Moi University is currently approximated to be 23,000 students. This is the total of 17,000 government-sponsored students and 6,000 privately-sponsored students. It is projected Moi University will have a student population of around 28,000 by 2014, taking into account current annual student growth of three percent for government-sponsored students and ten percent for privately-sponsored students (Moi University Strategic Plan 2005–2015). The university has five campuses, namely, Main, Chepkoiilel, Town, Eldoret West and Annex. The university is proud of the establishment of eight satellite campuses, namely, Kitale, Nairobi, Kericho, Southern Nyanza, Odera Akang'o, Central Kenya and Coast.

Moi University Vision and Mission

Moi University's vision is "to be the university of choice in nurturing innovation and talent in science, technology and development." The university mission is "to preserve, create and disseminate knowledge; conserve and develop scientific, technological and cultural heritage through quality teaching and research; to create conducive work and learning environment; and to work with stakeholders for the betterment of society" (Moi University 2005). Based on this vision and mission, Moi University has integrated quality into curriculum development and delivery.

The university quality policy statement is, "Moi University is committed to providing quality education and services that meet the needs of its customers and stakeholders through quality and relevant teaching, research and community service/outreach." Customers refer to students, parents and citizens, while the stakeholders are the government of Kenya through the ministry of education, the private sector, donors and other networks.

Moi University Organizational Structure

Moi University's organizational structure is presented in Fig 1, while curriculum development and review is shown by Fig 2.

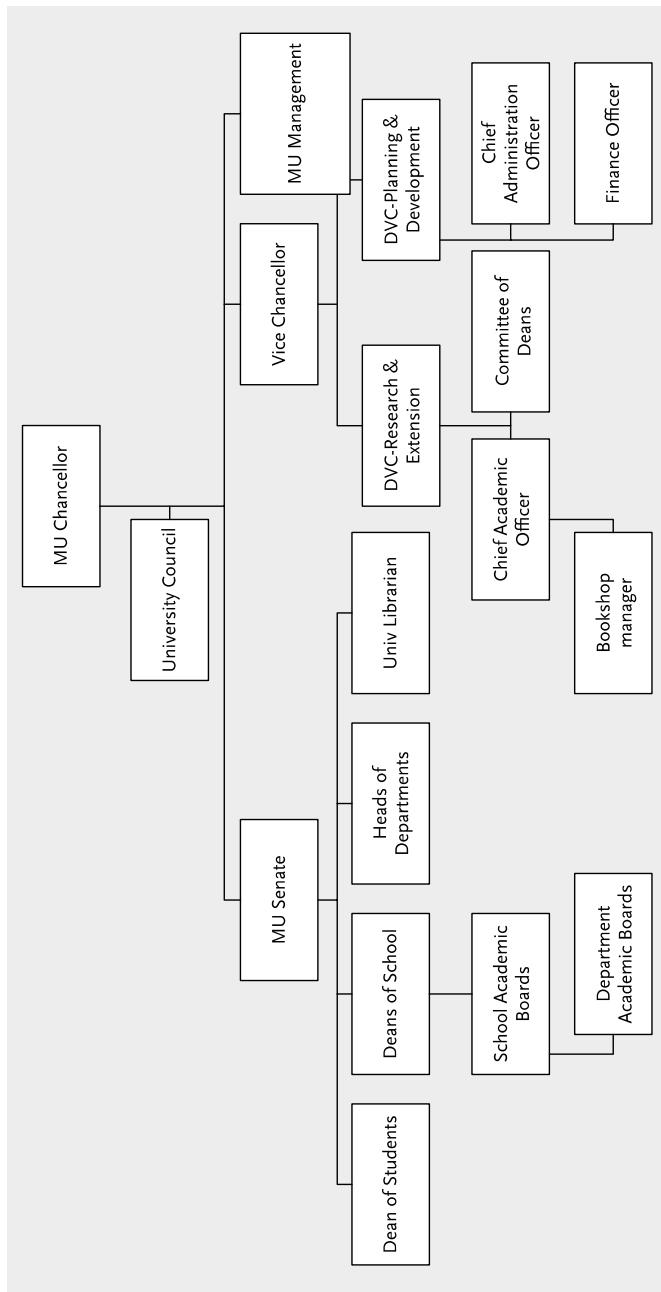


Fig. 1: Moi University organizational structure

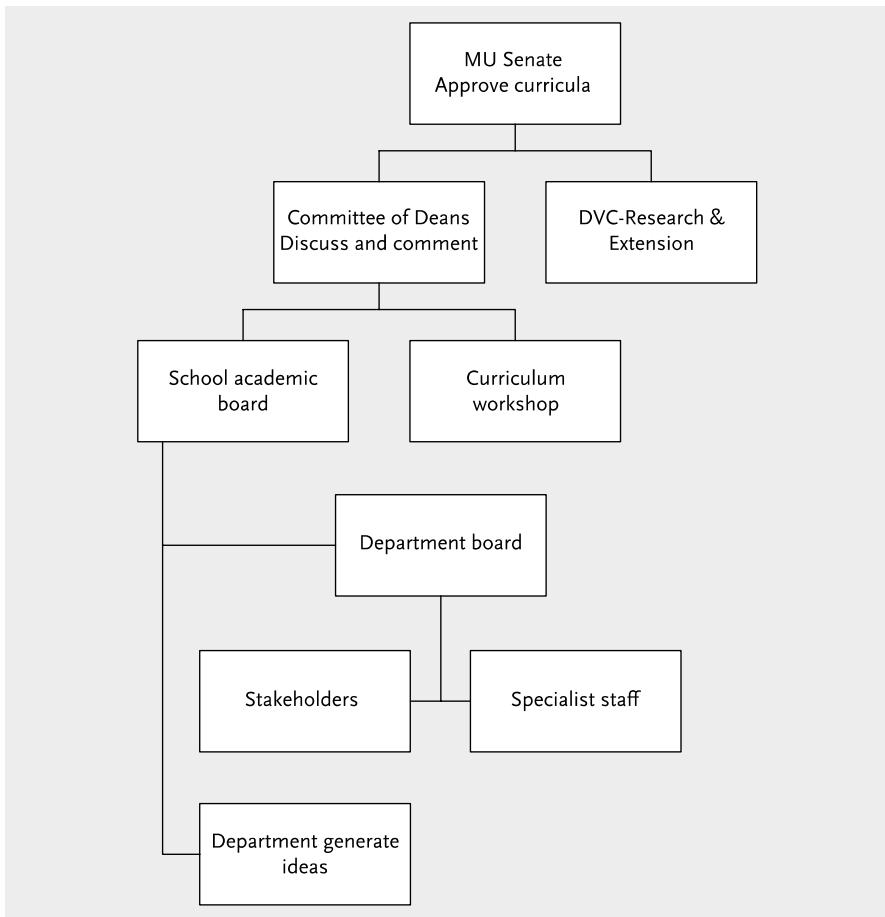


Fig. 2: MU Curriculum development structure

The process of curriculum development begins in the individual departments and ends at the level of senate for approval. University management, the Council and the Chancellor are to show good will in terms of assisting departments to market and implement approved curriculum programs (Fig 1 and 2).

Moi University's Academic Programs

The university has registered students in 121 academic programs shared among fifteen schools, namely, agriculture, engineering, education, arts, environmental,

business, science, natural resources, medicine, public health, dentistry, law, information and human resources. The 121 programs offered are comprised of forty undergraduate programs, fifty-three master's programs, twenty-three doctoral programs and five post-graduate diplomas. Eighty percent of the students are enrolled for undergraduate and twenty percent at post-graduate levels.

Curriculum Development and Review at Moi University

Curriculum Development and Review at Department Level

Moi University's statutes vest the development and delivery of curriculum in academic departments lead by heads of department (HoD). However, the chief academic officer is responsible for ensuring that curriculum development and review is carried out in accordance with university regulations. Quality management in curriculum development at the department level requires qualified staff to develop curricula relevant to current community needs and problems, keep in mind requirements of the Kenyan government, and observe standards requisite to an internationally respected education.

According to the Inter University Council of East Africa (IUCEA 2006) and the Commission for Higher Education (CHE 2008), all academic departments need to be headed by a qualified, academically trained individual with relevant and appropriate experience in university teaching, preferably a professor or associate professor holding a PhD in the relevant field of study. He/she should preferably be employed full-time. Academic teaching staff should hold an academic qualification of at least one level above what he/she is supposed to teach/lecture. This has been implemented at Moi University, whereby diploma programs are taught by bachelor's degree graduates, undergraduate programs are taught by master's degree holders and doctorate programs are taught by senior lecturers and holders of a PhD or its equivalent.

To achieve and maintain quality in curriculum development and delivery, Moi University has encouraged academic excellence in research that enables departments to have professors, senior lecturers and several lecturers who participate in developing and reviewing curricula. The curriculum development at the university is divided into diploma, graduate and postgraduate programs. This paper will only consider curriculum development processes for graduate and post-graduate degree programs.

In order to work in line with the globally accepted definition of quality in curriculum development ('satisfaction of the customer/client'), Moi University has involved its

customers and stakeholders when developing academic programs. This has enhanced the ‘fitness-for-purpose’ in the curricula, thus resulting in the meeting of customers’ needs. At Moi University, quality corresponds to the satisfaction of the customers which is evidenced in high numbers of applications to the programs offered.

Curriculum development is initiated by teaching staff in departments that identify areas in need of developing a new curriculum and point out curricula that require review. They then call for department meetings to brainstorm on these needs, chaired by the HoD. The HoD identifies and tasks specialized staff (sub-committee) to initiate the process of curriculum development and review with a time frame of two months. The specialized staff collect relevant information from their colleagues, related departments, the market for and consumers of the program, relevant government ministries, industry and key experts. The sub-committee prepares a memorandum of suggested new curriculum or revisions to existing curricula. The memorandum is submitted to the HoD, who will table it in a special department academic board meeting for discussion. All university curricula must have the following items:

- Enrolment requirements
- Objectives
- Scope
- Specific courses and content
- Duration
- Mode of assessment
- Standard references
- Academic award.

The department academic board (all teaching staff) considers the proposals submitted by the sub-committee and possibly makes some revisions. The sub-committee then integrates these suggestions of the department academic board and drafts a new or revised curriculum within one month. On receipt of the draft curriculum and its amendments the HoD distributes it to academic staff in the school for further input within two weeks. On receipt of the inputs from academic staff, the HoD organizes a workshop to deliberate the draft courses and revisions. The workshop is facilitated by resource persons (who are subject specialists) from outside the department. The participants of the curriculum workshop are department academic staff, stakeholder’s representatives (students, parents, industry, private sector, ministry of education and tertiary institutions,). The aim of the workshop is to improve the quality of the proposed curriculum to suit the market demand, community expectation, maintain an international standard and create awareness

among consumers. The findings of the workshop are compiled by the sub-committee and submitted to the HoD, who circulates it to department academic staff for further input. The HoD then holds a department academic board meeting to discuss the advanced draft curriculum and potentially recommend for onward transmission to the school board.

Curriculum Development and Review at School Level

The HoD compiles an advanced curriculum draft and submits it to the dean for consideration by the school curriculum committee. The committee recommends amendments to the source department for consideration. The aim here is to further improve the draft curriculum in line with other existing curricula. When the school curriculum committee is satisfied, the draft is submitted for further discussion in the School board. The School academic board may propose amendments for the source department to consider. The department considers the amendments and submits the draft curriculum to the School board for review and recommendations. When the School board is satisfied with the draft curriculum and course revision, it authorizes the dean to submit the draft curriculum and review recommendations to the Chair, committee of deans (DVC- Research and extension).

The chair of the committee of deans tables the proposed curriculum and course revision at the committee of deans for discussion. The deans' committee may propose amendments for the source department to consider. The department considers the amendments and resubmits the draft to the committee of deans through the dean. If the committee of deans is satisfied, it authorizes their chairperson to submit the proposed curriculum and course revision to the Chief Academic Officer (CAO) for onward presentation to University Senate for discussion.

Curriculum Development and Review at Senate Level

The Chief Academic Officer, on receipt of the proposed curriculum and revisions, tables it in the University Senate for discussion within two weeks. The Senate discusses the proposed curriculum and course revision and may suggest amendments for the source department to consider. The department considers the Senate's amendments and re-submits the proposed curriculum and revisions to the Senate through CACO. If the Senate is satisfied with the draft curriculum and course revisions, the curriculum is approved and becomes a bona fide university curriculum to be run in the source department.

Curriculum Delivery at Moi University

According to Moi University's regulations, "The Dean is responsible for quality teaching in his/her respective school. The Head of department is responsible for the day-to-day teaching activities in his/her respective department." This statement, quoted in the quality manual of Moi University, states clearly the role of 'dean' and 'HoD' in the management of quality teaching in the school. Since several departments make up a school, it is important to note the special role of HoD in managing quality teaching in a university. Thus, the qualification and administrative capacity of HoD is considered key to quality teaching at Moi University.

At Moi University, HoDs are appointed by the Vice Chancellor from three people recommended by the deans of each school. The three staff are normally ranked according to academic seniority, with small deviation to further gender equity. This procedure is in line with Kenyan government requirements for appointment to public office. The shortcomings associated with the appointment of HoDs is the lack of administrative training after appointment. The university normally organizes a one-day induction for the HoD, which is deemed insufficient. HoDs end up 'learning the ropes' of administration on the job. Each HoD serves a term of three years with the possibility of renewal. Reappointment as head will depend on one's performance and satisfactory work in respect to managing departmental affairs.

Tab. 1: Time Frame for curriculum delivery in a semester at Moi University

	Activity	Responsibility	Time
1.	Course distribution	HoD	1 week
2.	Lecturers begin	Course lecturers	4 weeks
3.	Setting of examinations	Course lecturers	1 day
4.	Department moderates exams	HoD & course Lecturers	1 day
5.	Administer CAT 1	Course lecturers	1 day
6.	Lecturers resume	Course lecturers	4 weeks
7.	Administer CAT 11	Course lecturers	1 day
8.	Lecturers resume	Course lecturers	2 weeks
9.	Administer CAT 111	Course lecturers	1 day
10.	Revision	Students & course lecturers	2 weeks
11.	Administer examinations	HoD & course lecturers	2 weeks
12.	Course & lecturer assessment		1 day
13.			16 weeks

Allocation of Courses to Teaching Staff

Five weeks prior to the beginning of a semester, the examination coordinator circulates the proposed teaching timetable to HoDs. Each HoD will convene a department meeting to allocate courses for the semester one month prior to the beginning of the semester. All academic staff are required to be present at this department meeting. A list of staff and courses taught is generated, guided by university requirements on full-time equivalent (FTE) of each department. Where a department has a shortage of teaching staff, some internal and external applicants are considered to fill the gaps.

Each lecturer generates a course outline, a list of references, a practical manual and lecture notes, guided by the course description. This is done for all courses, and copies are submitted to the HoD for filing. At the first week of teaching, the lecturer provides students with a copy of the course outline, including the reading reference list. The course outline indicates topics to be covered, course assessment tests (CATs), practical work, group assignments, individual assignments and end of semester examination plans. The course outline provides the grading system, marks for assignments and examination, and the mode of examining. The lecturer will register all students taking the course and maintain a class attendance register throughout the semester. Late registration, of course, or continuous absence in class is reason enough to disqualify a student, based on a twenty percent rule. Thus, it is important for all registered students to attend all class activities.

Curriculum Delivery and Assessment

A course lecturer is expected to deliver course content guided by the course outline and teaching timetable to the respective students for a period of fourteen weeks. A lecturer maintains a class attendance register for all course activities, which is used to analyze the percentage of attendance for the purpose of examinations. Any student who scores less than eighty percent of course activities is disqualified from taking examinations in that registered course. The lecturer will assess students' progress using CATs, under guidance of the university's examination regulations. Lecturers schedule main examinations in the first week of the second month in the semester, guided by university rules and regulations on examinations. The draft examinations are submitted to HoD for filling.

The HoD, upon collecting all examinations, will call for a department meeting to internally moderate the examinations. Within two weeks, the examinations are sent to external examiners for moderation. Within two weeks, the external examiner returns moderated questions to the HoD, who is the chief examiner in the depart-

ment. The HoD will integrate the comments of the external examiner into the examinations paper and submit them to the examination office five weeks before examination period commences.

Three weeks to the start of examinations, the school's examination coordinator will produce an examination timetable and propose names of invigilators. Two weeks to the end of semester, students will sit for university examinations. The HoD is responsible for the smooth running of the examination period. She/he will assign two examination invigilators for each examination room and one security officer. Examination papers will be collected by invigilators from the examination office thirty minutes to commencement of examination time. This process is done under strict security. At the beginning of each examination, invigilators will register candidates present (using examination card number, identification number and signature). Examinations will run for the stipulated time, after which scripts are collected for secure storage at the dean's/HoD's office. Internal examiners will collect and mark scripts within one month of sitting examinations. All examination scripts in the department will be externalized at the end of each academic year. Student results will be deliberated at a departmental meeting where the comments of the external examiner will be considered. Within two weeks of externalizing examinations, student results are forwarded to the dean for tabling in the School Board. If issues arise from student results, the School Board will appoint a sub-committee to investigate. If the School Board is satisfied with student results from departments, the School Board directs the dean to submit the same to the Chair of Senate for discussion and approval. Any issues arising from student results at the senate level will be handled by a sub-committee of the Senate. If the Senate is satisfied with the results, it approves them and the departments announce them to students.

Students' Course and Lecturer Assessment

One week to the end of teaching, students will be supplied with course and lecturer evaluation forms by the school administrator. The students will assess whether the content of the course was sufficient, if it was well-presented by the lecturer and how it might be improved in future. The evaluation forms will be analyzed by quality assurance officer, and reports will be delivered to the HoDs, who will circulate them to the teaching staff. The lecturers will use summaries of the evaluation reports to improve on their mode of delivery, content of the course and reading references in the subsequent semester or academic year.

The instrument of evaluation forms is currently being challenged by the University Academic Staff Union (UASU), which has questioned the validity of the tool and

the implied consequences for non-performing teaching staff. Currently, the university management is holding talks with UASU officials on the best way to assess teaching and learning at Moi University.

Quality Management in Curriculum Development and Delivery

The experiences from Moi University's case study indicate that in order to maintain quality in curriculum development and delivery, several factors need to be considered. This paper will briefly discuss some factors that promote or hinder quality.

Quality in Teaching Facilities

The teaching facility (lecture room, laboratory, tutorial room and/or discussion room) should maintain standards, as stipulated in the IUCEA guidelines (2006), in order to assure quality teaching. This refers to the size of classrooms/ lecture halls and laboratories vis-a-vis the number of registered students for that course and its duration. This is because some lectures last one hour, others last three or five hours. The university has extended lecture hours from seven in the morning to about nine thirty in the evening, thus the need to improve teaching facility to be comfortable at all times. The expectation here would be that a teaching facility used for a period of three hours should be comfortable for teacher and student alike in order to facilitate learning. The lecture halls need to be fitted with equipment that fosters learning as well as makes the lecturer and students comfortable. Security for students and lecturer need be observed at all times.

Quality of Teaching Staff

For individual lecturers offering courses at the university level, it is important to maintain quality in curriculum development and delivery. Globally, university lecturers and professors are often not paid commensurate to the time put into lecture preparation, delivery and assessment. As a result, staff do not fully participate in all areas of academia, such as in research and consultancies. It is important for Moi University to highlight consultancy processes and increase funds for research to motivate lecturers not only to teach, but also to participate in research and consultancy. The university needs to promote a culture of quality teaching, research and consultancy through honoraria and other rewards.

Quality at Work Environment

In order for an employee to perform well, he/she requires a good work environment. At Moi University, lecturers lack basic work environment standards, such as office space, computers, printers, stationery and internet connectivity. This inconveniences lecturers. The university must provide these basic requirements to enable lecturers to fulfill all their tasks appropriately.

Challenges of Quality Management at Moi University

Moi University is faced with some challenges in attaining quality curriculum development and delivery. A major challenge arises from education liberalization and expansion. The university has eight satellite campuses, and coordinating quality is difficult and requires employing extra staff to deliver curriculum. Maintaining appropriate teaching facilities while student enrolment increases is increasingly challenging. The university needs to construct more facilities (lecture rooms, laboratories and staff offices) to enhance quality curriculum delivery. The lecture rooms should be fitted with public address systems, laptops and LCDs, which allow for easy presentation of content. Finally the university is faced with inadequate teaching staff, high academic staff turn-over, a lack of incentives for highly qualified academics and competition from private universities. The University needs to come up with a quick/easy employment process for academic staff, particularly in departments with high staff turnover. Academic staffs on permanent terms of service are more stable than those on a contract basis. In order to decrease staff turnover, some incentives should be developed for highly qualified staff to improve on staff retention.

Conclusion

Over time Moi University has continuously improved in terms of maintaining quality in curriculum development and delivery. However, more attention needs to be put on quality of lecture rooms, laboratories, university and industry networks and international linkages. The university needs to develop quick/shorter procedures for curriculum development and review. New curricula should be developed touching on current global issues, such as sustainable and affordable housing, water resources management, urban development and eco-sanitation. The institution needs to move away from a market-driven curriculum and target innovation-based curricula that will enable graduates to create employment for youth and resolve emerging global issues. Continuing education and distance learning are promising

pathways to university education, particularly when challenged by a lack accommodation space or classroom capacity. Currently in Kenya, university education is on high demand, and institutions of higher learning like Moi University need to embrace information and communication technology (ICT) in curriculum development and delivery.

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